

BYLAWS of the QUANTITATIVE BIOLOGY PROGRAM at MICHIGAN STATE UNIVERSITY

1. PREAMBLE

Modern problems in biological sciences increasingly require highly interdisciplinary approaches with significant quantitative input from a range of disciplines. The Quantitative Biology (QB) dual-major Ph.D. program enables such research by promoting student training between biological and physical, chemical, mathematical, and computational disciplines. Current areas of research focus include: molecular biophysics; systems biology; ecological and evolutionary modeling; and genomics, bioinformatics and computational biology. The QB program interfaces with about 20 departments in the physical and biomedical sciences and engineering, and is administered by the College of Natural Science (CNS).

The purpose of this document is to outline the procedures by which QB faculty, staff, and graduate students participate in the academic governance of the program. If, in any matter, specifications or omissions place these Bylaws in conflict with University or College policies, as promulgated in their Bylaws, the latter shall take precedence.

2. QB MEMBERSHIP, LEADERSHIP, AND MEETINGS

2.1 VOTING MEMBERS

QB voting members consist of all MSU faculty members holding the rank of professor, associate professor, or assistant professor under the rules of tenure who choose to become part of the program, as defined by providing their contact information, focus area affiliation(s), and other research information for posting on the QB website. In addition, those holding other research-oriented faculty appointments (research stream, specialist and adjunct positions) can petition the director for voting membership, to be decided by the director in consultation with the executive committee (EC). QB voting members will be eligible to vote for the QB program director and QB EC members, on bylaws issues, and in any other elections that may be held by the QB program.

2.2 AFFILIATE MEMBERS

Affiliate members are other faculty members, staff, postdoctoral fellows/research associates, and graduate students who are not eligible to vote (as defined in the section above) but choose to be affiliated with the QB program, as defined by providing their contact information, focus area affiliation(s), and other research information for posting on the QB website. Affiliate members are also encouraged to participate in QB activities.

2.3 DIRECTOR

The QB program director supervises graduate recruiting, graduate fellowships, curriculum development, student activities, training grants, and external prominence of the training program. The director can appoint an associate director to participate in these functions, if deemed necessary. Associate directors may be elected to the EC and may also act as committee chairs.

2.3.1 Director Functions

2.3.1.1 Call and lead meetings of the EC and oversee the QB staff.

2.3.1.2 Carry out long-range planning with the EC regarding the QB graduate training program and its budget. This planning should emphasize a balance in representation and active participation from the four research focus areas, as well as participation by a breadth of departments.

2.3.1.3 Work with EC members to appoint members to the QB committees, as described below.

2.3.1.4 Serve as administrative liaison between QB and its partner graduate training units (currently, Biochemistry & Molecular Biology [BMB], Cell & Molecular Biology [CMB], Chemical Engineering & Materials Science [CHE], Chemistry [CEM], Civil & Environmental Engineering [CEE], Computer Science & Engineering [CSE], Electrical and Computer Engineering [ECE], Epidemiology [EPI], Genetics [GEN], Mathematics [MTH], Mechanical Engineering [ME], Microbiology & Molecular Genetics [MMG], Pharmacology & Toxicology [PHM], Physics & Astronomy [PHY], Physiology [PSL], Plant Biology [PLB], Statistics & Probability [STT], Zoology [ZOL]), and other graduate programs.

2.3.1.5 Serve as administrative liaison with the QB home college (CNS), the university administration, and other MSU interdisciplinary programs (e.g., Ecology, Evolutionary Biology, and Behavior [EEBB]).

2.3.1.6 Prepare annual budget requests in coordination with the EC, and supervise budget expenditures.

2.3.2 Director Initial Appointment

2.3.2.1 The QB EC must schedule a meeting with the dean to review CNS policies and formulate specific procedures for selection of the director. The voting faculty shall have shared responsibility with the CNS dean to determine procedures for selecting the director to be nominated to the provost.

2.3.3 Director Review

2.3.3.1 The director shall be subject to a periodic review at an interval of five years. The faculty advisory council must schedule a meeting with the dean to review CNS policies and formulate specific procedures for the periodic review of the director. The faculty shall have shared responsibility with the CNS dean to determine procedures for review of the director.

2.4 EXECUTIVE COMMITTEE

2.4.1 The EC is composed of 12 voting members who advise the director and chair the QB committees. The EC is responsible for overseeing and populating the committees and working towards the goals of the QB program, reviewing course offerings and requirements of the QB program, coordinating training grant

applications on relevant areas, overseeing updates to the QB website, and developing advertising literature. In fall 2010, the EC members with unexpired terms of the former Quantitative Biology Initiative along with four newly elected members will become the EC of the QB program. EC members are elected for 3-year terms, with four EC members coming up for election every fall. Current EC members will be eligible for unlimited renewal by reelection. The director and EC will solicit new candidates/nominees for the EC from the voting members prior to each election. The names, affiliations, and experience of the candidates with the QB program and the former Quantitative Biology Initiative, and any short statement they choose to provide about their interests/goals for the QB program, will be circulated by e-mail to the voting members of the QB program at least two weeks before the election. Those nominees receiving the most votes will be elected to the open positions in the EC, and this will be announced within a week of the election. Any vote ties between candidates will be resolved by a runoff election to be held within the following month. A non-voting staff member (e.g., QB Administrative Assistant) will be responsible for collecting and tallying the votes, and announcing the election results.

- 2.4.2 EC members will be appointed as chairs of the QB sub-committees by the director and EC, taking into consideration the interests of the EC members as well as their commitment to take an active role in one or more committees. The term of each committee chair is 3 years, subject to renewal by agreement of the EC and the chair. Replacement of a committee chair by the director and EC may occur at an earlier date if the member is not actively pursuing the committee's goals.

2.5 MEETINGS

Meetings of the EC will be called at the discretion of the QB director and/or EC, typically four times a year, and general meetings of the QB voting and affiliate membership will be held as needed, typically once per year. Representatives of the graduate students may be invited to attend the faculty meetings unless, in the judgment of the director, the discussion centers on matters in which student participation is not appropriate. The meetings will be led by the director and governed by Robert's *Rules of Order, Revised*.

2.6 STANDING COMMITTEES

QB standing committee members are appointed by and overseen by the EC member chairing each committee. The committee members each have one-year terms and are eligible for renewal without limit if they, the committee chair, and the EC are agreeable. Graduate students, postdocs, and staff may be appointed as committee members if they are deemed well qualified by the EC. These committees are:

- 2.6.1 *Graduate Recruiting Committee*. This committee will consist of four QB voting members selected by the QB director in consultation with the EC, plus one QB graduate student elected by the QB students. Its functions are to:

- 2.6.1.1 Seek to attract top students to the QB program. The committee will recruit vigorously the best-qualified candidates, and assist the QB director in identifying such candidates. This committee will be responsible for increasing the size and the quality of our applicant pool and will emphasize the recruitment of underrepresented groups into the program.
 - 2.6.1.2 Evaluate applications for admission to the QB Graduate Program and make recommendations to the QB Director as to whether or not the applicants should be admitted. In doing so, the Graduate Recruiting Committee shall consider the following: academic performance, research experience, letters of recommendation, competence in the English language, and GRE scores. The prospective QB Program student must also be admitted by one of the QB dual-major Ph.D. participating departments or graduate programs.
 - 2.6.1.3 As available through the Graduate School or training grants, use recruiting fellowships to attract the best-qualified candidates to the program.
- 2.6.2 *Seminar Committee.* Membership consists of three QB faculty members selected by the director in consultation with the EC plus one QB Graduate Program graduate student elected by the graduate students. Its functions are to:
- 2.6.2.1 Plan the QB-hosted Science at the Edge seminar series in collaboration with the Department of Physics and Astronomy and of Engineering.
 - 2.6.2.2 Work with the QB director to budget the seminars and secure continued funding.
 - 2.6.2.3 Select appropriate topics and presenters. The seminar committee will solicit in writing suggestions for speakers from QB faculty, postdocs, and students.

3 GRIEVANCE PROCEDURES

- 3.1 Any QB faculty member or QB graduate student may initiate a grievance procedure, alleging violation of existing policies or established practices, pursuant to the procedures set forth in the Michigan State University Faculty Grievance Policy or Michigan State University Graduate Student Rights and Responsibilities.
- 3.2 As a first step, the QB Director or one or more representatives of the EC will meet with the parties involved in an effort to resolve the grievance informally.
- 3.3 In the event that the grievance is not resolved to the satisfaction of all parties, the grievance procedures set forth in the documents referenced in 3.1 will be followed.

4 BYLAWS

4.1 INITIAL APPROVAL

The QB Bylaws, as drafted by the EC, shall become effective upon approval by the Dean of CNS and a two-thirds majority of all QB voting members who participate in the vote.

4.2 INTERPRETATION

In cases where the bylaws are deemed ambiguous, the QB director and EC members together shall propose a clarification that is subject to official approval (by 2/3 majority of those voting members who participate in the vote) and by the Dean of CNS, who will be the final authority with regard to the interpretation of these bylaws.

4.3 AMENDMENTS OR REVISIONS

Any voting QB faculty member may request in writing that the EC initiate procedures to amend or annul any part of these Bylaws. The EC shall research and discuss the proposed amendment at its next meeting and shall forward the request, together with its recommendation, to the faculty at a regular or special meeting, so that it can be considered further, and amended if necessary. Following passage of a motion for approval of the request, or its amended version, to be put to vote, the amendment shall be submitted to the QB voting faculty. Upon approval by a two-thirds majority of all who participate in the vote, the amendment becomes a part of the bylaws, or the section whose annulment was desired, becomes void.

4.4 REVIEW OF BYLAWS

In accordance with the provisions of the University Bylaws for Academic Governance, the membership of the QB program will review the bylaws at regular intervals not to exceed five years. The EC will have the responsibility of ensuring that these reviews are carried out and will have delegated authority by the Dean of CNS to establish the procedures of the review process.